

What is claimed is:

1. An objective optical system configured to be suitable to be implemented at a tip of an endoscope, comprising:

a first lens unit having a first lens barrel and a first optical system including a plurality of lens elements assembled in said first lens barrel; and

a second lens unit having a second lens barrel and a second optical system including a plurality of lens elements.

2. The objective optical system according to claim 1, wherein said first lens unit is provided with a fixing unit that fixes said first optical system to said first lens barrel, said second lens barrel being assembled to said first lens barrel, said fixing unit interposed between said first lens barrel and said second lens barrel to define a clearance therebetween.

3. The objective optical system according to claim 1, wherein at least one of said first lens unit and second lens unit includes an alignment lens which is movable in a direction perpendicular to the optical axis thereof.

4. The objective optical system according to claim 3,

wherein said alignment lens is included in said first optical system, said first lens barrel being formed with a plurality of holes through which parts of a circumferential surface of said alignment lens is seen.

5. The objective optical system according to claim 4, wherein said alignment lens is movably accommodated in said first lens barrel, said alignment lens being moved by pins inserted through said plurality of holes, respectively.

6. The objective optical system according to claim 3, wherein said alignment lens is configured to be most sensitive with respect to an alignment error among the plurality of lenses included in said first optical system.

7. The objective optical system according to claim 3, wherein said alignment lens is configured to be most sensitive with respect to an alignment error among all the lenses included in said objective optical system.

8. The objective optical system according to claim 7, wherein said alignment lens is a cemented lens.

9. The objective optical system according to claim 1, wherein said first lens barrel is attached to said second

lens barrel by a screw connection.

10. A method of assembling an objective optical system that is suitable to be implemented at a tip of an endoscope, the method comprising:

forming a first optical system by assembling a plurality of lenses in a first lens barrel, the first lens barrel being formed with a plurality of holes on a circumferential surface thereof, the plurality of holes allowing access to a predetermined one of the plurality of lenses in the first lens barrel;

forming a second optical system by assembling a plurality of lenses in a second lens barrel which is to be coupled to the first lens barrel;

inserting rods through the plurality of holes to move the predetermined one of the plurality of lenses in the first lens barrel to adjust an alignment thereof;

fixing the predetermined one of the plurality of lenses to the first lens barrel; and

coupling the first lens barrel and the second lens barrel with maintaining a coaxial state of an optical axis of the first optical system and an optical axis of the second optical system.